

REMARKS

Claims 1-47 stand rejected. Claims 10, 19, and 43 are objected to for certain informalities. Claims 23, 32, and 47 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1-24 are rejected under 35 U.S.C. §101 because the claimed invention is allegedly directed to non-statutory subject matter. Claims 1-3, 5-9, 17-22, 24, 25-27, 29-33, and 41-46 are rejected under 35 U.S.C. §102(b) as being anticipated by MathWorks Simulink® (hereinafter MathWorks). Claims 4, 10-16, 23, 28, 34-40, and 47 are rejected under 35 U.S.C. §103(a) as being unpatentable over MathWorks as applied to claim 1 and further in view of Fenlason's GNU gprof (hereinafter GNU gprof).

Claims 1, 6-7, 9-20, 23, 25, 27-29, 31-32, 34-40, 42-44, and 47 are amended and new claims 48-69 are added. No new matter is added by way of this response. Applicants respectfully traverse the rejections of claims 1-47.

Telephonic Interview

Applicants thank the Examiner and Dr. Jones for the courtesies extended to Applicants' representative and Mr. Yeddanapudi (co-inventor on instant application) on October 3, 2006. During the interview, the 35 U.S.C. §101 and §102(b) rejections of claim 1 were discussed. Mr. Yeddanapudi discussed distinguishing features of the invention of claim 1 with respect to The MathWorks prior art of record.

Claim Objections

The Examiner objects to claims 10, 19, and 43 due to informalities. Claims 10, 19 and 43 are amended to address the informalities identified by the Examiner. Reconsideration of claims 10, 19, and 43 is respectfully requested in view of these

amendments.

Claim Rejections

Claims 1-24 are rejected under 35 U.S.C. §101 as being directed to non statutory subject matter. Amended independent claim 1 recites a preamble of “A method, comprising” which is a recognized statutory class. Moreover, amended claim 1 recites a tangible and useful result, namely outputting the debug information to a user, the debug information allowing the user to determine proper or improper operation for at least a subset of the plurality of execution methods that are executed during the execution of the model. For at least these reasons, Applicants request that the 35 USC §101 rejection of claim 1 be withdrawn. Claims 2-24 depend from claim 1 and are believed allowable based on the amendments to claim 1. Applicants request that the 35 USC §101 rejections of claims 2-24 be withdrawn. Reconsideration of claims 1-24 is respectfully requested.

Claims 1-3, 5-9, 17-22, 24, 25-27, 29-33, and 41-46 are rejected under 35 U.S.C. §102(b) as being anticipated by MathWorks. Applicants respectfully traverse these rejections for at least the following reasons.

Amended independent claim 1 recites a method that includes the steps of providing a graphical debugger interfaced with a model view of a model being executed, the model comprising one or more blocks that comprise a plurality of execution methods, the graphical debugger having debug information related to the execution of the model, the debug information indicating at least one of the order of the execution of the plurality of execution methods for the one or more blocks and a start time or a stop time of at least one of the plurality of execution methods that are executed during the execution of the model; and outputting the debug information to a

user, the debug information allowing the user to determine proper or improper operation for at least a subset of the plurality of execution methods that are executed during the execution of the model. MathWorks does not disclose or suggest at least one of these features.

For example, MathWorks does not disclose or suggest providing a graphical debugger interfaced with a model view of a model being executed, the model comprising one or more blocks that comprise a plurality of execution methods, the graphical debugger having debug information related to the execution of the model, the debug information indicating at least one of the order of the execution of the plurality of execution methods for the one or more blocks and a start time or a stop time of at least one of the plurality of execution methods that are executed during the execution of the model, as required by claim 1. The Examiner alleges that MathWorks discloses this feature at pages 12-3, 12-5, 12-16, and 12-19 (Office Action, page 3). Applicants respectfully disagree.

MathWorks at page 12-3 discloses starting a debugger and the display of a simulation start time. Page 12-3 does not disclose or suggest at least “the model comprising one or more blocks that comprise a plurality of execution methods” or “the debug information indicating at least one of the order of the execution of the plurality of execution methods for the one or more blocks and a start time or a stop time of at least one of the plurality of execution methods that are executed during the execution of the model,” as required by claim 1 (emphasis added). For at least these reasons, MathWorks at page 12-3 does not disclose or suggest the features of claim 1.

MathWorks at page 12-5 discloses stepping from block to block during debugging, MathWorks at page 12-16 discloses displaying a model’s block execution

order, and MathWorks at page 12-19 discloses displaying debug settings. Pages 12-5, 12-16, and 12-19 of MathWorks do not disclose or suggest features of claim 1, such as “the debug information indicating at least one of the order of the execution of the plurality of execution methods for the one or more blocks.” For at least this reason, MathWorks at pages 12-5, 12-16 and 12-19 does not disclose the features of claim 1.

The MathWorks at pages 12-3, 12-5, 12-16, and 12-19 fail to disclose or suggest the features of amended claim 1. Therefore, a 35 USC §102(b) rejection of claim 1 based on MathWorks (pages 12-3, 12-5, 12-16, and 12-19) is improper and should be withdrawn. Applicants respectfully request withdrawal of the 35 U.S.C. §102(b) rejection of claim 1. Reconsideration and allowance of claim 1 is respectfully requested.

Claims 2-3, 5-9, 17-22, and 24 depend from claim 1 and are allowable for at least the reasons presented above with respect to claim 1. Withdrawal of the 35 U.S.C. §102(b) rejection of claims 2-3, 5-9, 17-22, and 24 is respectfully requested. Applicants further request reconsideration and allowance of claims 2-3, 5-9, 17-22, and 24.

Amended independent claim 25 recites features similar to the features of claim 1 and is allowable for at least the reasons presented above with respect to claim 1. Withdrawal of the 35 USC §102(b) rejection of independent claim 25 and dependent claims 26-27, 29-33, and 41-46 is respectfully requested. Reconsideration and allowance of claim 25 and claims 26-27, 29-33, and 41-46 is respectfully requested.

Claims 4, 10-16, 23, 28, 34-40, and 47 are rejected under 35 U.S.C. §103(a) as being unpatentable over MathWorks as applied to claim 1 and further in view of GNU gprof. Applicants traverse the 35 U.S.C. §103(a) rejection of claims 4, 10-16, 23, 28,

34-40, and 47 for at least the following reasons.

MathWorks and GNU gprof, alone or in any reasonable combination, do not disclose or suggest the features of dependent claims 4, 10-16, 23, 28, 34-40, and 47. For example, GNU gprof discloses a text-based profiler that lets a user determine where portions of generated code spend time during execution (GNU gprof, page 2). GNU gprof does not disclose or suggest a graphical debugger and GNU gprof does not cure the shortcomings of MathWorks with respect to features of independent claim 1 or 25, from which claims 4, 10-16 and 23, and claims 28, 34-40, and 47 depend, respectively.

For example, regarding claim 1, GNU gprof does not disclose or suggest providing a graphical debugger interfaced with a model view of a model being executed, the model comprising one or more blocks that comprise a plurality of execution methods, the graphical debugger having debug information related to the execution of the model, the debug information indicating at least one of the order of the execution of the plurality of execution methods for the one or more blocks and a start time or a stop time of at least one of the plurality of execution methods that are executed during the execution of the mode.” Since MathWorks also fails to disclose or suggest these features of claim 1, the combination of MathWorks and GNU gprof does not support a valid 35 U.S.C. §103(a) rejection of claim 1 or claims depending therefrom (namely, claims 4, 10-16, and 23). Claim 25 recites features similar to the features of claim 1. Therefore, MathWorks and GNU gprof, alone or in any reasonable combination, do not disclose or suggest the features of claim 25 or claims depending therefrom (namely, claims 28, 34-40, and 47).

Since the combination of MathWorks and GNU gprof does not disclose or

suggest the features of independent claims 1 or 25, these references do not disclose or suggest features of claims depending from claims 1 or 25, namely claims 4, 10-16, 23 or claims 28, 34-40, and 47, respectively. Therefore, a 35 U.S.C. §103(a) rejection of claims 4, 10-16, 23, 28, 34-40, and 47 based on MathWorks and GNU gprof is improper and should be withdrawn. Applicants respectfully request withdrawal of the 35 U.S.C. §103(a) rejection of claims 4, 10-16, 23, 28, 34-40, and 47.

Reconsideration and allowance of claims 4, 10-16, 23, 28, 34-40, and 47 is respectfully requested.

New Claims

New claims 48-69 have been added by way of this response. Claims 48-69 are believed allowable over the cited art. Allowance of claims 48-69 is respectfully requested.

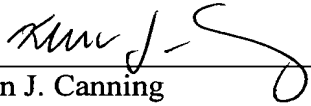
CONCLUSION

In view of the foregoing remarks, Applicants respectfully request withdrawal of the outstanding rejections and the timely allowance of this application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. §1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 12-0080 and please credit any excess fees to such deposit account.

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Respectfully submitted,

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